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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,168	07/11/2001	Hitoshi Katayama	K&Y-156	8121
20374	7590	08/22/2003		<i>8</i>
KUBOVCIK & KUBOVCIK SUITE 710 900 17TH STREET NW WASHINGTON, DC 20006			EXAMINER	CANTELMO, GREGG
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/889,168	KATAYAMA, HITOSHI
	Examiner Gregg Cantelmo	Art Unit 1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 28 July 2003.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1 and 2 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1 and 2 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on 28 July 2003 is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to the amendment received July 28, 2003:
  - a. Claims 3 and 4 have been cancelled. Claims 1 and 2 are pending;
  - b. The drawing objections have been withdrawn in light of the proposed corrected drawings;
  - c. The specification objection, claim objection and 112 rejection of claims 3 and 4 have been withdrawn in light of the cancellation of claims 3 and 4;
  - d. The 112 rejection of claim 2 has been overcome in light of the amendment;
  - e. The prior art rejections of record are withdrawn.

### ***Information Disclosure Statement***

2. The information disclosure statement filed August 1, 2003 has been placed in the application file and the information referred to therein has been considered as to the merits.
3. The information submitted with a statement under 37 CFR 1.97(e) can be used in a new ground of rejection and the next Office action can be made final, if the new ground of rejection was necessitated by amendment of the application by applicant. Where the information is submitted during this period with a fee as set forth in 37 CFR 1.17(p), the examiner may use the information submitted, and make the next Office

action final whether or not the claims have been amended, provided that no other new ground of rejection which was not necessitated by amendment to the claims is introduced by the examiner. See MPEP § 706.07(a) and MPEP § 609 paragraph (B)(2).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-143372 A (JP '372) in view of JP '814.

JP '372 discloses a battery 11 capable of being removably mounted in a coupling surface of a video camera, etc. (device 1) and having an opposing planar surface which is capable of having another battery joined thereto, said battery 11 comprising front and rear covers which enclose the battery pack, the front cover is provided with a v-shaped engagement part 13 in its surface corresponding to a v-shaped recess in the adjacent component to which the battery pack is attached to, the v-shaped protrusion 13 having a V-shaped receiving groove for receiving and forming a dovetail joint (Figs. 1-4 as applied to claim 1).

As discussed above with respect to the phrase "video camera etc." the term "etc" is not explicitly limited in the claim and thus can be any electrical device including communications equipment.

The difference between claim 1 and JP '372 is that JP '372 does not disclose of the rear cover having a substantially V-shaped recess in it's surface having a top portion formed by a V-shaped engagement plate having a dove tail cross-section. The configuration permitting coupling to another device on the rear cover side.

The concept of providing identical mating devices on opposing sides of a battery pack is known as shown in Fig. 1 of JP '814. Thus when the first side of the battery pack having multiple coupling means on opposing sides of the pack is attached to an electrical device 1, the opposing second side is coupled to a second battery pack 25.

The motivation for providing both the front and rear covers of the battery pack with V-shaped coupling surfaces is that it permits securing of an additional battery source to the electrical device thereby prolonging the use of the device.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '372 by providing both the front and rear covers of the battery pack with V-shaped coupling surfaces is that it permits securing of an additional battery source to the electrical device thereby prolonging the use of the device.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '372 in view of JP '814 as applied to claim 1 above, and in further view of JP 11-174135-A (JP '135) or JP 09-035762-A (JP '762).

The difference between JP '372 and instant claim 2 is that JP '372 does not explicitly disclose a circuit for outputting a self-capacitance, a terminal for inputting a self-capacitance output from another battery, and an averaging circuit for averaging an output of the self-capacitance output circuit and an input terminal to produce an output.

JP '135 discloses a circuit for outputting self-capacitance, a terminal for inputting a self-capacitance output from another battery, and an averaging circuit for averaging an output of the self-capacitance output circuit and an input terminal to produce an output (abstract and Figs. 1 and 5).

JP '762 discloses a circuit for outputting self-capacitance, a terminal for inputting a self-capacitance output from another battery, and an averaging circuit for averaging an output of the self-capacitance output circuit and an input terminal to produce an output (abstract and Figs. 1, 2 and 3).

The motivation for using the arrangement of either JP '135 or JP '762 in the battery of JP '372 is that it drives the remaining capacity calculation circuit at the optimum voltage and discharge in good balance in a battery stack (JP '762) and provides a device for measuring the capacity of a battery where more accurate remaining capacity is calculated and an excessive discharge or the like for a specific battery due to reducing in the remaining capacity can be eliminated (JP '135).

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '372 by using a circuit for outputting a self-capacitance, a terminal for inputting a self-capacitance output from another battery, and an averaging circuit for averaging an output of the self-capacitance

output circuit and an input terminal to produce an output the arrangement as disclosed by either JP '135 or JP '762 since it would have driven the remaining capacity calculation circuit at the optimum voltage and discharge in good balance in a battery stack and additionally provided a device for measuring the capacity of a battery where more accurate remaining capacity would have been calculated and an excessive discharge or the like for a specific battery due to reducing in the remaining capacity would have been eliminated.

#### ***Response to Arguments***

7. Applicant provides no clear argument as to how the amended claims differentiate from the prior art. It would appear that the amendment to claim 1 wherein the rear cover is provided with a V-shaped engagement plate is a structural feature not shown or disclosed in JP '814. Instead JP '814 discloses that the V-shaped engagement surface and rear cover plate are of a unitary construction, and not a separate V-shaped engagement plate. For this reason the Examiner has taken the position that the prior art of JP '814 no longer anticipate claim 1 and the rejection has been withdrawn.

Arguments applied to JP '814 as the primary reference are moot in view of the new ground(s) of rejection which employs JP '372 as the primary reference used in the rejections above.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (703) 305-0635. The examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (703) 308-2383. FAX communications should be sent to the appropriate FAX number: (703) 872-9311 for After Final Responses only; (703) 872-9310 for all other responses. FAXES received after 4 p.m. will not be processed until the following business day. Any inquiry of a

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general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gregg Cantelmo  
Patent Examiner  
Art Unit 1745

gc

August 20, 2003

  
A handwritten signature in black ink, appearing to read "gc".  
  
An official circular stamp of the United States Patent and Trademark Office, Patent Examiner, with the number "1700" handwritten next to it.